

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 1 has been amended to correct typographical errors therein.

The Examiner has rejected claims 1 and 8 under 35 U.S.C. 112, paragraph 1, as failing to comply with the written description requirement in that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, the Examiner states:

"Regarding claims 1 and 8, applicant discloses "...generating a local timebase corresponding to said received timebase. . .", "...pausing the local timebase. . .", "...restarting the output timebase. . .", and "...said signal detector generating a detection signal when said identification signal is not detected..." However, application fails to provide adequate support by the first paragraph of 35 U.S.C. 112 for above mentioned limitation in the detailed description. Applicant to provide support for this limitation."

Applicant submits that while the specific wording now appearing in claims 1 and 8 does not appear in the specification as filed, the subject matter appearing in the claims was indeed described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention. In particular, claim 1 includes the limitations "generating a local timebase corresponding to said received timebase", "pausing the local timebase, at unspecified time intervals, to accommodate at least interactive

applications, if the identification signal is not detected" and "restarting the local timebase when the identification signal is detected...". In the specification as filed, on page 4, lines 16-17, it is stated "Included in the data component 22 is a timebase 23, which is a periodic clock inserted into the data component 22 every second." Further, at page 5, lines 15-19, it is stated "The receiver 34, which comprises apparatus for monitoring the broadcast signal 28, comprises receiving means 36 for receiving the broadcast signal 28, the broadcast signal 28 including the timebase 23, and monitoring means 38 for monitoring the broadcast signal 28 for an identification signal 24, and for pausing the timebase 23 if the identification signal 24 is not present.", and at lines 23-24, it is stated "The monitoring means 38 is, however, arranged to restart the timebase 23, once the identification signal is present."

Applicant submits that one skilled in the art would know that the receiver **cannot** pause the timebase contained in the received signal, but rather the receiver generates a local timebase corresponding to (and probably synchronized with) the received timebase, and that the receiver is able to pause the local timebase, and restart the local timebase. Applicant asserts that this should become clear when reviewing the specification as filed on page 8, lines 3-7, where, in describing a conventional receiver, it is stated that when the original timebase 23 is not present, the receiver will for a short period continue running the timebase 23 on the basis that the timebase 23 is lost from the original signal. Applicant submits that one skilled in the art would know that the

receiver cannot continue running the received timebase if it is not being received. Rather, one skilled in the art would know that the receiver is generating a local timebase based on the received timebase, and that if the received timebase is missing from the received signal, the receiver is capable of continuing to run the local timebase until the received timebase is recovered.

Applicant has decided to cancel the wording "said signal detector generating a detection signal when said identification signal is not detected" appearing in claim 8, and to indicate that the local timebase generator is "coupled to the signal detector for pausing the local timebase when the identification signal is not detected".

Applicant believes that the above changes and explanation answer the Examiner's 35 U.S.C. 112, paragraph 1, rejection of claims 1 and 8, and the Examiner's 35 U.S.C. 112, paragraph 2, rejection of claim 1, and respectfully requests withdrawal thereof.

The Examiner has rejected claims 1-5, 7-12, 14, 15, 17 and 18 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0079225 to Piesing in view of U.S. Patent Application Publication No. 2004/0034875 to Bulkowski et al. and U.S. Patent 7,634,787 to Gebhardt et al. In addition, the Examiner has rejected claims 16 and 19 under 35 U.S.C. 103(a) as being unpatentable over Piesing in view of Bulkowski et al. and Gebhardt et al, and further in view of U.S. Patent Application Publication No. 2009/0320073 to Reisman.

The Piesing publication discloses processing of a broadcast signal in which an apparatus synchronizes broadcast programs with their respective interactive applications such that commercials, for example, can be inserted into the broadcast programs without affecting any interactive applications. This is achieved by use of an identification signal 24 in the broadcast signal, which is then monitored in the received signal at the receiving end. The identification signal 24 is a regular "heartbeat", the absence of which causes the interactive application to be stopped or paused, with the resumption of the identification signal 24 causing the interactive application to be restarted.

The Bulkowski et al. publication discloses a method and apparatus for transmitting data in a data stream "which addresses and resolves the issues currently affecting the ability to offer Enhanced TV, in particular, those issues concerning timing and synchronization, interaction with other modules in the STB, and distribution".

The Gebhardt et al. patent discloses automatic control of broadcast and execution of interactive applications to maintain synchronous operation with broadcast programs, in which at the broadcaster end, the insertion of commercials in the program stream at the broadcaster end is noted and the broadcast server sends commands to the broadcast receivers to suspend execution of the interactive application.

The Piesing publication discloses an apparatus similar to that in the subject application. However, as noted by the Examiner, Piesing fails to disclose "a timebase is included in the broadcast signal and pausing the timebase, wherein said timebase is a periodic clock inserted into one of the three components." The Examiner further adds "Bulkowski discloses (§0039, §0069, §0070, claim 2) that the time pulses (periodic clock) is combined with the data-substream, which is a part of MPEG/data stream. Bulkowski further discloses (§0081-§0083) that the time base, associated with the data sub-stream, is transmitted to the client device as represented in Fig. 5. Bulkowski also discloses (§0070) that the timing information transmitted with the data stream to the client device includes time pulses, which delivered regularly to the client and consist of the current time on the stream's time base. Bulkowski also discloses (§0074-§0076) that the time base associated with data stream is paused. Bulkowski further discloses (TABLE 1) that the pauseTime is time in seconds at which the enhancement should be paused, and all UI (user interface) made invisible to the user." and "As to "restarting the timebase" Bulkowski discloses (§0083) that the client device recreates the time base associated with the data stream."

Applicant submits that in Bulkowski et al., the pausing of the timebase in the broadcast stream is effected by the broadcast server in response to commercials known to the broadcaster being inserted into the broadcast stream. Further, the broadcast server in Bulkowski et al. sends special signals to the client receivers

notifying the client receiver of an impending pause in the timebase being transmitted, and when the timebase will be restarted. As noted in paragraph [0076] of Bulkowski et al.:

"[0076] ...Communication the distinction between paused and unpaused time bases to the client is especially important when the client may start receiving data on the substream at any time: the internal state of the client may be set very differently if it first receives a paused time pulse rather than a standard time pulse."

Hence, Applicant submits that the combination of Piesing and Bulkowski et al. would result in a system that monitors the received stream for an information signal, that pauses an interactive application when the information signal is not present, that the received broadcast signal includes a timebase, and that the timebase may be paused by the broadcaster for the insertion by the broadcaster of a commercial. However, Applicant submits that the combination of Piesing and Bulkowski et al. does not disclose the method as specifically set forth in claim 1, i.e., "receiving, by an end user device, a broadcast signal, the broadcast signal including at least three components, an identification signal and a timebase being a periodic incremental clock inserted in one of the three components", "generating a local timebase corresponding to said received timebase", "monitoring the broadcast signal in order to detect the identification signal", "pausing the local timebase, at unspecified time intervals, to accommodate at least interactive applications, if the identification signal is not detected", and "restarting the local timebase when the identification signal is

detected such that at least two of the three components are resynchronized with the interactive applications".

With regard to Gebhardt et al., the Examiner states "Gebhardt discloses (col 5, lines 4-33; col.14, lines 4-64) that the execution of the interactive application is suspended; after a commercial is completed, execution of the interactive application is resumed and began from the same state information it had when the commercial began. Gebhardt further discloses (col. 10, lines 19-24; col. 13, lines 54-61) that in response to control signals, execution of an interactive application, such as starting or pausing application, is generated to effect the synchronous execution of the television shows and broadcast programs. Gebhardt also discloses (col.7, lines 59-61; col.11, lines 57-65) that the control signals are embedded in real time into the broadcast data."

Applicant submits that Gebhardt et al. is similar to Bulkowski et al. in that the insertion of commercials is performed at the broadcaster end, and the pausing of execution of an interactive application is effected by control signals from the broadcaster. Hence, as noted above with regard to Piesing and Bulkowski et al., the combination of Piesing, Bulkowski et al. and Gebhardt et al. has no answer to the situation where the timebase/identification signal are interrupted due to, for example, the insertion of a further commercial into the broadcast stream downstream from the broadcaster and upstream from the client receiver. Since the broadcaster does not know of this further commercial, the broadcaster does not pause the timebase included in

the broadcast stream and does not send pause timebase signals to the client receivers. Further, there is no disclosure nor suggestion in Piesing, Bulkowski et al. and Gebhardt et al. of pausing a local timebase corresponding to the timebase contained in the received broadcast signal in response to the identification signal not being present.

Claims 16 and 19 include the limitation "wherein the additional information is unannounced weather updates."

The Reisman publication discloses a method and apparatus for browsing using multiple coordinated device sets, in which a user may enter a special channel number to receive a "virtual" channel carrying some selection of services, such as weather, news, sports, shopping, and the like (paragraph [0123]), or instead of forced information in the form of, e.g., a scrolling banner overlaying a portion of a program being watched (paragraph [0527]), this forced information may be directed to a secondary device set (e.g., PC), in which the forced information may include "alerting services, such as, for example, news alerts, financial advice, and/or for extension to the Emergency Broadcast System..." (paragraph [0528]).

The Examiner indicates that Reisman shows additional information is unannounced weather updates.

Applicant submits that one must look at the claims in context, not independently. In particular, claim 16 depends from claim 14 which claims "the pausing step occurs due to insertion of

additional information in the broadcast signal". Hence, claim 16 is not related to any additional information being unannounced weather updates, but rather unannounced weather updates being inserted into a broadcast stream such that it interrupts the identification signal and the timebase. Applicant submits that this is neither disclosed nor suggested by Reisman. Further, Applicant submits that Reisman does not supply that which is missing from Piesing, Bulkowski et al. and Gebhardt et al., as noted above.

In view of the above, Applicant believes that the subject invention, as claimed, is not rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicant believes that this application, containing claims 1-5, 7-12 and 14-19, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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